

**Remarks**

The Office Action dated June 3, 2004 has been carefully reviewed and the foregoing remarks are made in response thereto. In view of the above claim amendments and following remarks, Applicants respectfully request reconsideration and reexamination of this application and timely allowance of the pending claims. Applicants appreciate the efforts of the Examiner in discussing the objection to the specification via telephone on September 29, 2004.

All of the previously pending claims have been cancelled without prejudice or disclaimer. The cancelled claims have been rewritten as claims 65 to 94 to better define the claimed invention. Applicants respectfully submit that no new prohibited matter has been introduced by these amendments. While written description support for the amendments and additional claims can be found throughout the specification and in the original claims, examples of specific support for the additional claims can be found in the specification on page 6, lines 8 to 12 and page 7, lines 18 to 20.

**Summary of Office Action**

1. The amendment filed November 12, 2003 was objected to under 35 U.S.C. 132 for containing new matter.
2. Claims 38 to 44 and 47 to 64 were rejected under 35 U.S.C. 112 (second paragraph) as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.
3. Claim 38 to 44 and 47 to 64 were rejected under 35 U.S.C. 112 (first paragraph) as failing to comply with the written description requirement.
4. Claims 38 to 40, 47, 49 and 51 were rejected under 35 U.S.C. 102(b) as being anticipated by *Sia et al.* (1995) Accession No. AAR77770.
5. Claims 38 to 40, 47, 49 and 51 were rejected under 35 U.S.C. 102(b) as being anticipated by *Strunnikova et al.* (1996) Accession No. Q71538.
6. Claims 45 and 46 were found to be allowable.

**Correction of Sequence Listing**

Applicants submitted a declaration under 37 C.F.R. 1.132 by Gerald V. Quinnan which sets forth the circumstances in which a sequence error in SEQ ID NO: 1 (HIV envelope protein gp160, R2 strain) in the as-filed specification and sequence listing was discovered. The Examiner rejected the amendment

under 35 U.S.C. 132 as purportedly containing new matter. The Examiner contends that the declaration by Dr. Gerald Quinnan did not contain any indication that the sample of the original cDNA was taken from the same sample that was used to disclose the amino acid sequence of SEQ ID NO: 1 in the originally filed application.

Applicants note that minor corrections to sequence listings in the specification as described above are permissible provided that a deposit of the sequenced material has been made in accordance with the requirements under 37 C.F.R. 1.801 and a statement in compliance with 37 C.F.R. 1.804 is submitted by the Applicants. Applicants are in the process of depositing the original cDNA clone used to determine the nucleotide sequence of SEQ ID NO: 1. Following deposit of the clone, Applicants will submit the necessary statement under 37 C.F.R. 1.804. Applicants therefore request that the Examiner hold this objection in abeyance until such time that the deposit information is available for submission.

**Rejections under 35 U.S.C. 112 (second paragraph)**

The Office Action rejected claims 38 to 44 under 35 U.S.C. 112 (second paragraph) purportedly because certain claim language was indefinite for failing to particularly point out and distinctly claim the subject matter which Applicant regards as the invention. Applicants have cancelled these claims without prejudice or disclaimer, therefore the rejection is moot. Applicants submit that none of the previously rejected claim language remains in the dependent claims.

**Rejections under 35 U.S.C. 112 (first paragraph)**

The Office Action rejected claims 38 to 44 and 47 to 64 under 35 U.S.C. 112 (first paragraph) purportedly because they fail to comply with the written description requirement. Without acquiescing to the merits of this rejection, Applicants have canceled these claims and therefore the rejection is moot.

With regard to the substitute claims, Applicants submit that none of these claims contain the language that was the subject of this written description rejection.

**Rejections under 35 U.S.C. 102(b)**

Claims 38 to 40, 47, 49 and 51 were rejected under 35 U.S.C. 102(b) as purportedly being anticipated by *Sia et al.* Without acquiescing to the merits of this rejection, Applicants have canceled these claims and therefore the rejection is moot.

With regard to the substitute claims, Applicants have rewritten the claims such that they require ninety-two percent sequence identity across the entire amino acid sequence comprising SEQ ID NO: 1. Applicants submit that the cited reference does not disclose nor suggest a sequence with this level of sequence identity and which is capable of inducing cross-reactive neutralizing anti-serum against multiple strains of HIV-1 *in vitro*. Thus, neither reference discloses nor suggests each and every element of the substitute claims.

Claims 38 to 40 were rejected under 35 U.S.C. 102(b) as purportedly being anticipated by Strunnikova *et al.* Without acquiescing to the merits of this rejection, Applicants have canceled these claims and therefore the rejection is moot.

With regard to the substitute claims, Applicants bring to the attention of the Examiner that Strunnikova *et al.* discloses a multimeric lysine branched peptide containing V3 epitope regions. The cited reference does not disclose, nor suggest an envelope protein as set forth in the previously rejected claims and the present substitute claims. In addition, Applicants bring to the attention of the Examiner that the substitute claims now require that the claimed HIV envelope protein comprise at least ninety-two percent sequence identity to SEQ ID NO: 1. The cited reference does not disclose this claimed property. In addition, claim 69 requires that the claimed HIV envelope protein comprise an amino acid sequence with at least eighty-five percent sequence identity in the V3 region. The cited reference does not disclose this property as well.

### **Conclusion**

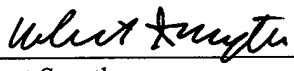
The foregoing amendments and remarks are being made to place the application in condition for allowance. Applicants respectfully request reconsideration and the timely allowance of the pending claims. A favorable action is awaited. Should the Examiner find that an interview would be helpful to further prosecution of this application, she is invited to telephone the undersigned at their convenience.

**Except** for issue fees payable under 37 C.F.R. 1.18, the Commissioner is hereby authorized by this paper to charge any additional fees during the entire pendency of this application including fees due under 37 C.F.R. 1.16 and 1.17 which may be required, including any required extension of time fees, or

credit any overpayment to Deposit Account 50-0310. This paragraph is intended to be a **Constructive Petition for Extension of Time** in accordance with 37 C.F.R. 1.136(a)(3).

Dated: **October 04, 2004**  
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Respectfully submitted  
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